**3GPP TSG-RAN5 Meeting #99 *R5-233311***

**Incheon, Korea, May 22nd – 26th, 2023**

**3GPP TSG RAN Meeting #100 RP-23xxxx**

**Taipei, June 12-14, 2023**

**Source: Huawei, HiSilicon**

**Title: New WID on UE Conformance - Rel-17 Power Class 2 UE for NR inter-band CA/DC with or without SUL configurations with x (6>=x>2) bands DL and y (y=1, 2) bands UL**

**Document for: Endorsement**

**Agenda Item: 4.1**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: UE Conformance - Rel-17 Power Class 2 UE for NR inter-band CA/DC with or without SUL configurations with x (6>=x>2) bands DL and y (y=1, 2) bands UL

Acronym: NR\_UE\_PC2\_R17\_CADC\_SUL\_xBDL\_yBUL-UEContest

Unique identifier:

|  |  |
| --- | --- |
| **This WID includes a Testing part** | **X** |
| **and it addresses the following 3GPP work area:** | **Radio Access** | **X** |
| **Core Network** |  |
| **Services** |  |

Potential target Release: Rel-17

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Affects:** | UICC apps | ME | AN | CN | Others (specify) |
| **Yes** |  |  |  |  |  |
| **No** | X | X | X | X |  |
| **Don't know** |  |  |  |  |  |

# 2 Classification of the Work Item and linked work items

### 2.1 Primary classification

This description is a

|  |
| --- |
| Normative Work Item:*tick applicable boxes below* |
|  | Stage 1 |
|  | Stage 2 |
|  | Stage 3 |
| X | Other (e.g. testing) |

### 2.2 Parent Work Item

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| NR\_UE\_PC2\_R17\_CADC\_SUL\_xBDL\_yBUL | R4 | 911009 | Rel-17 Power Class 2 UE for NR inter-band CA/DC with or without SUL configurations with x (6>=x>2) bands DL and y (y=1, 2) bands UL |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work/Study Items (if any) |
| **Acronym** | Unique ID | Title | Nature of relationship |
|  |  |  |  |

# 3 Justification

3GPP TSG RAN WG4 has completed a Rel-17 basket WI on requirements for PC2 UE for NR inter-band CA with more than two bands downlink and up to two bands uplink or SUL band combinations. 3GPP TSG RAN WG5 needs to start the relevant conformance test aspect based on operator’s interest.

# 4 Objective

### 4.1 Objective of SI or Core part WI or Testing part WI

The objective of the present work item is to introduce PC2 RF requirements and develop RF test cases for PC2 UE in RAN5 for NR inter-band CA with more than two bands downlink and up to two bands uplink or SUL band combinations in Rel-17. The introduction of the CA/DC configurations into the 3GPP TSG RAN WG5 test specification is dependent on the progress of the associated core and performance work item in 3GPP TSG RAN WG4.

Note: The progress of conformance test work of HPUE on any band configuration could not be set as 100% until the corresponding PC3 band configuration is confirmed as 100% completed.

# 5 Expected Output and Time scale

|  |
| --- |
| **New specifications** |
| Type  | TS/TR number | Title | For info at TSG#  | For approval at TSG# | Remarks |
|  |  |  |  |  |  |

|  |
| --- |
| **Impacted existing TS/TR** |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| TS 38.508-1 | Definition of common test environment for the Rel-18 HPUE for NR CA and DC and LTE and NR DC configurations. | TSG RAN#108(Jun-25) |  |
| TS 38.508-2 | Introduction of common implementation conformance statement (ICS) for Rel-18 HPUE for NR CA and DC and LTE and NR DC configurations. | TSG RAN#108(Jun-25) |  |
| TS 38.521-1 | Introduction of RF testing aspect for Rel-18 HPUE for NR CA and DC configurations  | TSG RAN#108(Jun-25) |  |
| TS 38.522 | Applicability statements of the Rel-18 HPUE for NR CA and DC and LTE and NR DC configurations | TSG RAN#108(Jun-25) |  |
| TR 38.905 | Documentation of test points for Rel-18 HPUE for NR CA and DC and LTE and NR DC configurations. | TSG RAN#108(Jun-25) |  |

# 6 Work item Rapporteur(s)

Yuxin Hao (Huawei)

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# 7 Work item leadership

RAN5

# 8 Aspects that involve other WGs

None

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Huawei |
| HiSilicon |
| Verizon |
| AT&T |
| NTT DOCOMO |
| Ericsson |